

MCF 3M

Review of key Skills
Recognizing Graphs
Translations
Expansion
Factoring
Identifying the 2 Zeros/Roots
Finding Vertex Form -
Completing the Square

Test Friday

WORD PROBLEMS

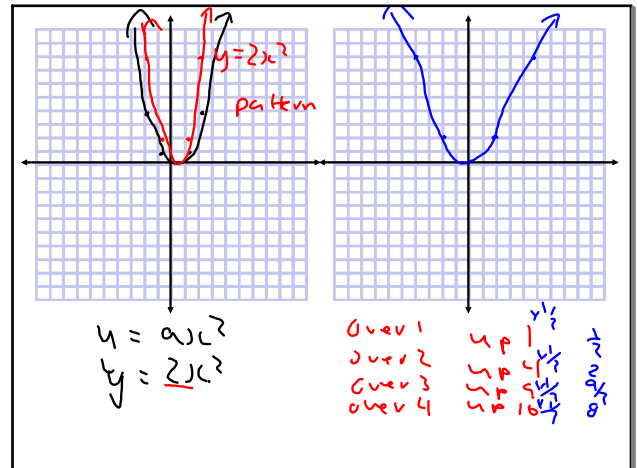
Finding Standard Form
Quadratic Formula

p 186 q 3-7,9,11-18

p 226 1,2,3,4 & 5

p254-255 q 1-10

Mar 10-8:12 AM



Mar 11-10:12 AM

Complete The Square

$$f(x) = -4x^2 - 8x + 12$$

$$f(x) = -4(x^2 + 2x) + 12 \quad \text{partial factor}$$

$$f(x) = -4(x^2 + 2x + 1 - 1) + 12 \quad \left(\frac{b}{2}\right)^2$$

$$f(x) = -4[(x+1)^2 - 1] + 12 \quad \left(\frac{b}{2}\right)^2$$

$$f(x) = -4(x+1)^2 + 4 + 12$$

$$f(x) = -4(x+1)^2 + 16 \quad [-1, 16]$$

Mar 11-9:43 AM

$$f(x) = x^2 + 2x - 35$$

$$f(x) = x^2 + 7x - 5x - 35$$

$$f(x) = x(x+7) - 5(x+7) + 2 \quad \begin{array}{l} \text{factored} \\ \text{zeros} \end{array}$$

$$= (x+7)(x-5)$$

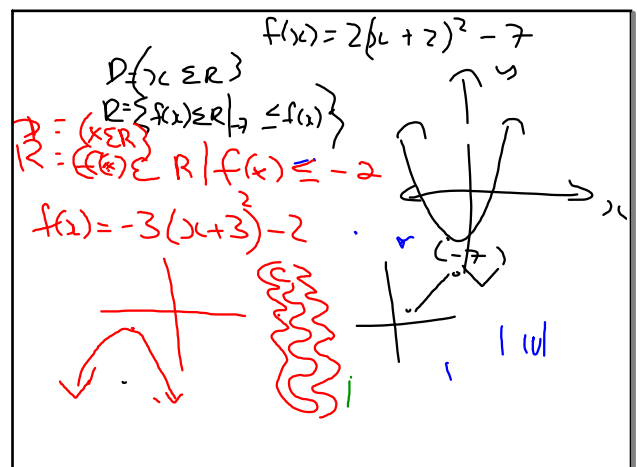
$$s = -7 \quad t = +5$$

$$\begin{array}{l} \text{factored} \\ \text{zeros} \\ \begin{array}{l} x+7 \\ x-5 \end{array} \end{array}$$

Mar 11-10:07 AM

p 223 q 7 $A = 400$
 $f(x) = 60x - 2x^2$ $x = w$ $R = \text{length } 400$
 $400 = 60x - 2x^2$
 $0 = 60x - 2x^2 - 400$
 $0 = -2x^2 + 60x - 400$
 $0 = 2x^2 - 60x + 400$
 $a = 2$ $-b \pm \sqrt{b^2 - 4ac}$
 $b = -60$ $-(-60) \pm \sqrt{(-60)^2 - 4(2)(-400)}$
 $c = +400$ $\frac{2(2)}$
 $x = \frac{60 \pm \sqrt{3600 - 3200}}{4}$
 $x = \frac{60 \pm \sqrt{400}}{4}$
 $x = \frac{60 \pm 20}{4}$
 $x = \frac{60+20}{4}$ $x = \frac{60-20}{4}$
 $x = \frac{80}{4}$ $x = \frac{40}{4}$
 $x = 20$ $x = 10$
 $20 \times 20 = 400$ $10 \times 40 = 400$
Therefore the optimal dimensions of a fence with an area of 400m² is 20x20 or 10x40.

Mar 24-10:52 AM



Mar 24-10:57 AM

#7 p. 155
Sally
 $h(t) = -5t^2 + 10t$
 $h(t) = -5(t^2 - 2t)$
 $h(t) = -5(t^2 - 2t + 1 - 1)$
 $h(t) = -5(t-1)^2 + 5$
 $(1, 5)$
The ball reaches a maximum height of 5m at 1 sec. Therefore it is a dangerous ball.

$t = s$
 $h(t) = m$
Dangerous Ball
3m

Nov 2-9:39 AM

$h(t) = -5t^2 + 50t$
when will it reach 45m
 $45 = -5t^2 + 50t$
Roots
 $0 = -5t^2 + 50t - 45$
Quadratic Formula
 $0 = 5t^2 - 50t + 45$
 $a = 5$
 $b = -50$
 $c = 45$

$0 = -5(t^2 - 10t + 9)$
 $0 = -5(t-9)(t-1)$
 $+9$ $+1$
41m
-10 -1 +9 -9

The firecracker reaches a height of 45m at 1 sec and again at 9 sec.

Apr 7-9:18 AM

p 120-121 q. 11, 12, 15, 16 & 18
p184 q. 1-10

Nov 2-8:39 AM

Oct 20-8:24 AM